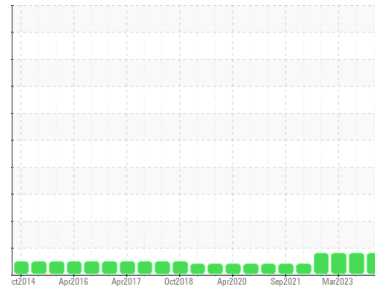




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

ACRYLIC

Machine Id

PMX I - AGITATOR

Component

Gearbox

Fluid

SHELL OMALA S2 G 220 (13 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 6 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | WC0813300 | WC0855199 | WC0771453 |
| Sample Date | Client Info | | | 14 Mar 2024 | 18 Sep 2023 | 17 Mar 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 9936 | 9691 |
| Oil Changed | Client Info | | | N/A | N/A | N/A |
| Sample Status | | | | ATTENTION | ATTENTION | ATTENTION |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | | >0.2 | NEG | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >200 | 7 | 7 | 7 |
| Chromium | ppm | ASTM D5185m | >15 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >15 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 2 | <1 | 0 |
| Lead | ppm | ASTM D5185m | >100 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | <1 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >25 | 1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 4.4 | 6 | 5 | 7 |
| Barium | ppm | ASTM D5185m | 0.0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | <1 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | <1 | 2 | 0 |
| Calcium | ppm | ASTM D5185m | 0 | 28 | 22 | 25 |
| Phosphorus | ppm | ASTM D5185m | 215 | 339 | 305 | 325 |
| Zinc | ppm | ASTM D5185m | 0 | 7 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 7039 | 14216 | 11581 | 15003 |

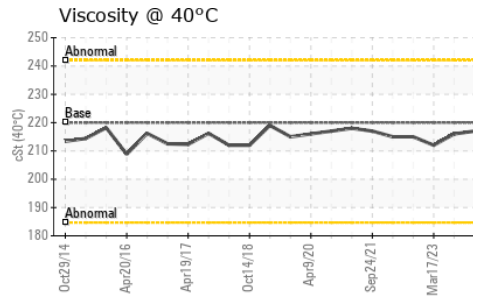
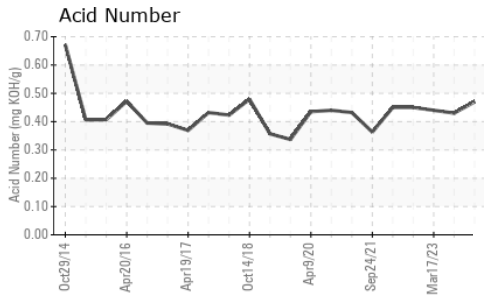
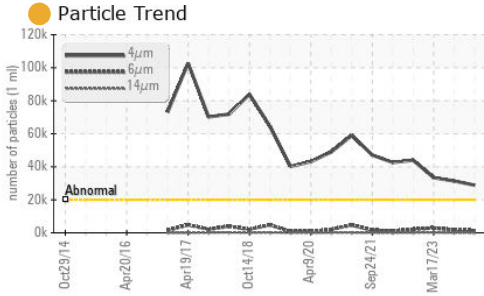
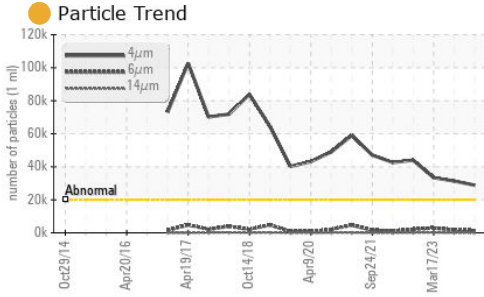
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >50 | 3 | 1 | 2 |
| Sodium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 0 | 2 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm | | ASTM D7647 | >20000 | 28839 | 31370 | 33393 |
| Particles >6µm | | ASTM D7647 | >5000 | 1350 | 1757 | 2918 |
| Particles >14µm | | ASTM D7647 | >640 | 58 | 74 | 152 |
| Particles >21µm | | ASTM D7647 | >160 | 11 | 15 | 24 |
| Particles >38µm | | ASTM D7647 | >40 | 0 | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | 22/18/13 | 22/18/13 | 22/19/14 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.47 | 0.43 | 0.44 |



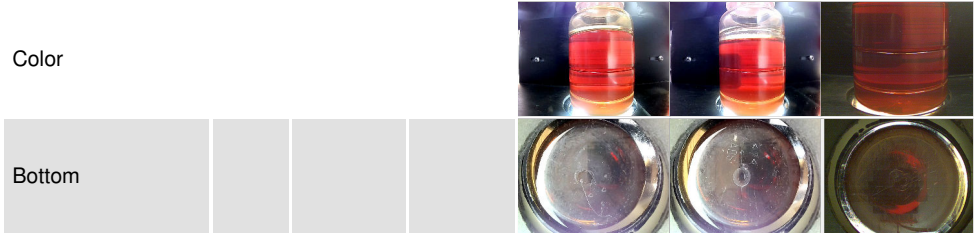
OIL ANALYSIS REPORT



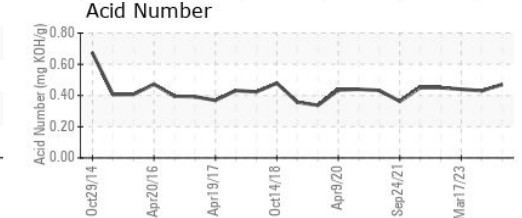
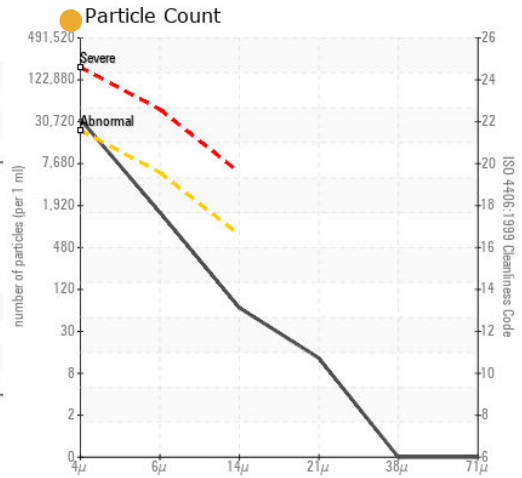
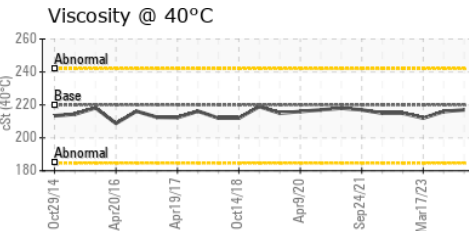
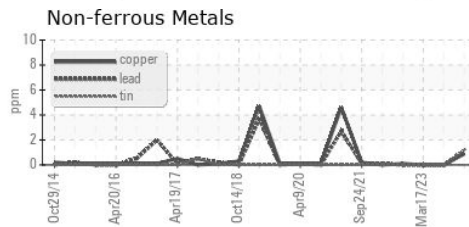
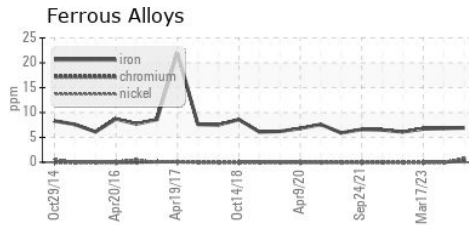
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 220 | 217 | 216 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0813300
 Lab Number : 06136335
 Unique Number : 10955800
 Test Package : IND 2 (Additional Tests: PrtCount)

Received : 02 Apr 2024

Tested : 03 Apr 2024

Diagnosed : 04 Apr 2024 - Don Baldrige

LUBRIZOL ADVANCED MATERIALS INC

207 TELEGRAPH DR

GASTONIA, NC

US 28056

Contact: TIMOTHY DAVIS

timothy.davis@lubrizol.com

T: (704)915-4131

F: x:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)